

fireproofing

**The Logic
of
Fireproof
Windows**

Harry C. Knisely Co.
273-275 S. Canal St.
Chicago

The Logic of Fireproof Windows



HARRY C. KISELY CO.

273-275 S. Canal Street

Chicago, Ill.

HARRY C. KNISELY COMPANY, CHICAGO



THE BORLAND BUILDING
CHICAGO

Shepley, Rutan & Coolidge
Architects

C. Everett Clark Co.
Gen'l Contractors

Thirteen floors of this building equipped with the Harry C. Knisely Co.'s
Fireproof Windows.

To the Architectural Profession, Builders and Owners:

IN fireproof windows, as in every other manufactured product, there are different degrees of excellence.

These differences are due partly to variations in the design of construction, more largely to variations in workmanship.

Our windows, we believe, present points of superior excellence in designing. These we are always glad to explain.

Most particularly we solicit business on the ground of thorough, careful workmanship.

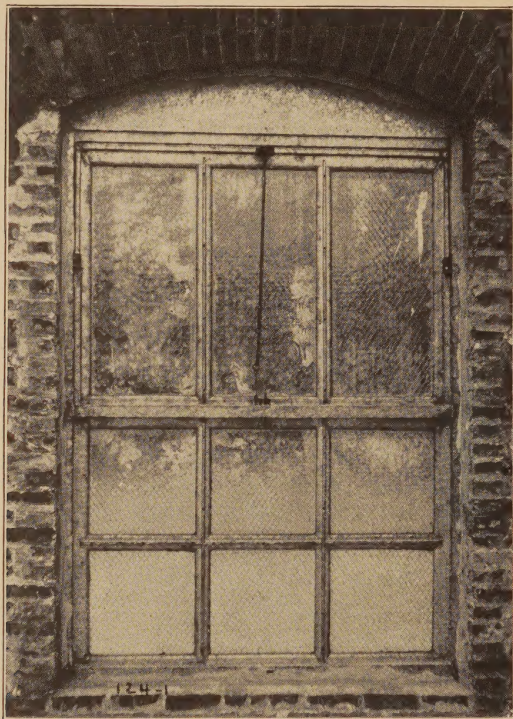
No skimping or "skinning," is permitted on our work. It is a standing order in our factory, that "good enough" is not sufficient. *Every* window must be fully up to the standard; must be the best that can be made.

Of course this is easy to say. Any one can say it. We believe we can *prove* it to the satisfaction of any prospective customer, if given the opportunity.

HARRY C. KNISELY
COMPANY

273 South Canal Street

Chicago



Test of our Standard Pivoted Window at the Underwriters' Laboratories, July, 1906

The photograph shows the interior view before the test

The Reason Why

THIRTY-ONE per cent of all fire losses are due to the "exposure hazard."

This statement is based on the accurate records of fire insurance experience for a period of twenty years.

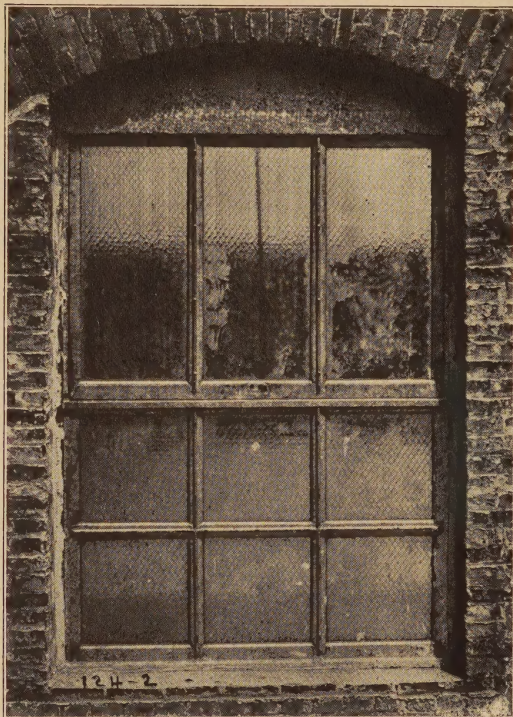
It means that if your building is ever damaged or destroyed by fire, the chances are one in three that the loss will be caused by a fire in your neighbor's building.

It means that if you adopt every known safeguard against fire in your own building, but fail to protect yourself against fire in an adjoining building, the odds are still one to two that you will suffer serious fire loss.

It means that if you *do* protect your building against fire from the exterior, that you reduce by one third the danger of fire loss to your property.

You will thereby reduce your fire insurance charges by a reduction in rate, proportionate to the decrease in hazard.

Windows of wire glass with correctly made metal sashes are recognized by fire underwriters as the best protection against



Test of our Standard Pivoted Window at the Underwriters' Laboratories, July, 1906

The photograph shows exterior view before the test

exterior fires and rates are made accordingly.

It is a curious comment upon popular ideas regarding so called "fireproof" buildings that comparatively little consideration is given to this question of window protection.

On every hand we see these fireproof buildings being erected. They are given really fireproof walls, floors and partitions of brick, concrete or tile, *with windows of common glass in wooden sashes*, inviting fire from surrounding combustible buildings to enter at every window.

Imagine building a vault of solid masonry, to protect valuables from fire and then cutting a hole in the wall of the vault, filling that opening with a window of plain glass and wood sash, while all around this vault is wooden office furniture and combustible goods of every description!

How secure would the contents of such a vault be?

Now, we do not need windows for interior vaults, but we must have them for buildings.



Test of our Standard Pivoted Window at the Underwriters' Laboratories, July, 1906

Photograph shows exterior view after the test. Note the excellent condition of the metal frame and sash.

There are only two conditions under which a building does not require fire-resisting window openings.

First, when the walls of the building are of combustible material (wood) in which case the walls would burn away from the window, and

Second, when a building is entirely isolated on all sides and separated by wide spaces from any other building or source of fire and *will always be thus isolated*.

If your building is in either one of these two classes you do not need fire-resisting windows.

If it is not, you not only need windows which are proof against fire, but it would be a serious error if you did not have them installed.

It would be an error in two ways. First, in not taking advantage of a means of eliminating one-third of the fire risk on your property. Second, in not taking advantage of a means of reducing your fire insurance charges to such an extent, that, even if your property were never threatened by fire you would still have a



Test of our Standard Sliding Sash Window at the Underwriters' Laboratories, July, 1906

Photograph shows exterior view before the test

constant saving every year equivalent to a saving on the original cost of the building.

To illustrate this second point: Suppose your building equipped with ordinary wood sash windows cost \$75,000, contents of building valued at \$100,000, total \$175,000. Your insurance rate, say, would be \$1.50 per \$100.00 and you would insure for full value. Insurance cost to you would be twenty-six hundred and twenty-five dollars per year and this would be a *fixed, permanent charge* every year.

Now suppose you substituted Harry C. Knisely Co. Fireproof windows at an extra cost, say, of \$3,000, enabling you to get an insurance rate of \$1.00 per hundred. Your yearly insurance charge would then be seventeen hundred and eighty dollars on a valuation of \$178,000, a saving of \$845 a year.

In less than four years you would save the additional cost of the fireproof windows and every year thereafter this saving would be "velvet." In other words if your building should never be in



Test of our Standard Sliding Sash Window at the Underwriters' Laboratories, July, 1906

Photograph shows interior view before the test

danger by fire from a neighbor, you would save an appreciable sum and if your neighbor *should* have a fire, your building and its contents would be saved.

In an article in "Concrete and Constructional Engineering," of London, September 1906, Captain John Stephen Sewell, who made the official report for the United States Government on the causes and conditions of the San Francisco fire says:

"The question of window protection is by all odds the most important. Had the fire been kept out of the 'fireproof' buildings in San Francisco, none of the weakness in either concrete or hollow tiles would have been developed and even the flimsy commercial type would have been on the whole good enough." * *

The serious problem in congested districts of large cities is not only the securing of a 'fireproof' covering for the steel frame, or a 'fireproof' construction which will have such resistance that it will come through a fierce fire undamaged, but is the devising of means of excluding an external fire."



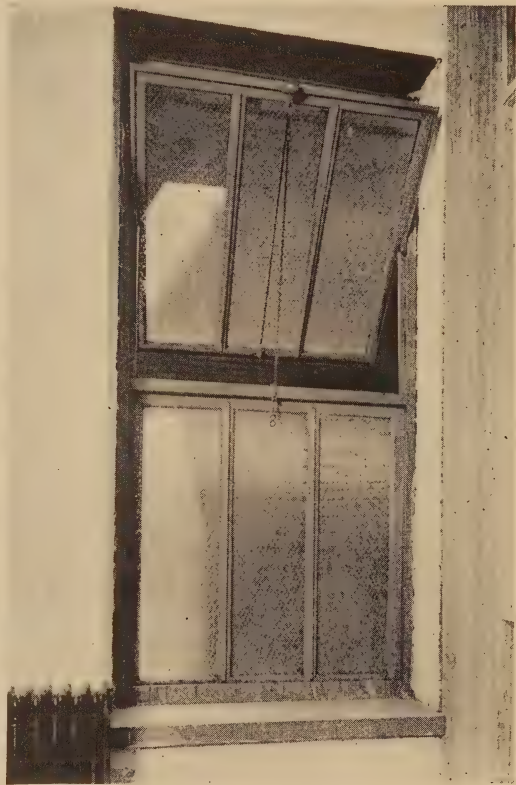
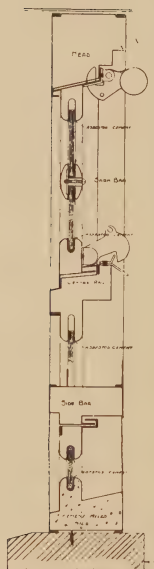
Test of our Standard Sliding Sash Window at the Underwriters' Laboratories, July, 1906

Photograph shows interior view after the test. Note the excellent condition of metal frame and sash.

This point has been the predominating lesson drawn by every authority who has pointed out the cause for the spread of the San Francisco conflagration.

We are prepared to prove to the satisfaction of every interested builder or architect, that our Metal Window Sash and Frames, glazed with wire glass, will resist an exterior fire successfully and keep fire out of any building protected by our window construction. We will prove it by reference to fires through which our Window Construction has successfully passed. We will prove it by actual test.

HARRY C. KNISELY COMPANY, CHICAGO



HARRY C. KNISELY CO.'S STANDARD AUTOMATIC
PIVOTED WINDOW

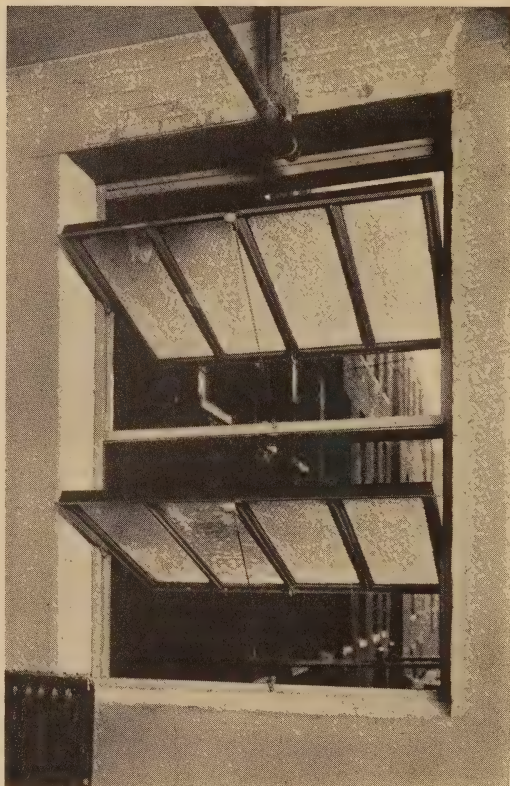
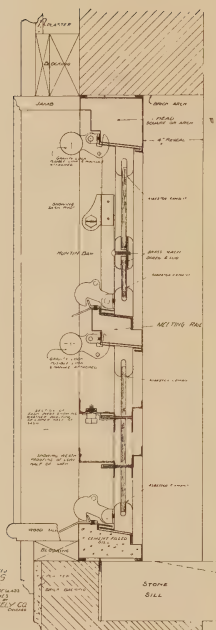
Extracts from the specifications of the National Board of Underwriters for the manufacture of Fireproof Windows

Metal frames containing sash or glass are not to be more than 5 feet wide nor more than 9 feet high at their highest point.

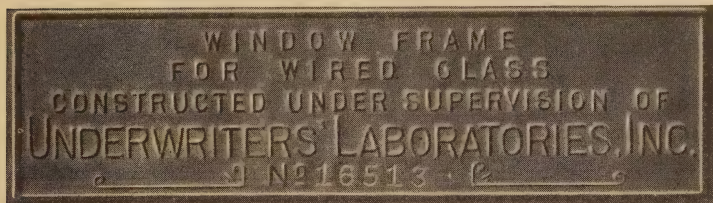
All frames in excess of these dimensions must be reinforced and divided by mullions or transom bars, consisting of a 5-inch I beam, protected by not less than 2 inches of concrete on flanges and at least $2\frac{1}{2}$ inches next to the web. I beams to be properly fastened to iron work of the building or to extend into the masonry at least $2\frac{1}{2}$ inches at each end.

In new buildings the reinforcing members should be installed as the building is erected.

No single light of glass will exceed 720 square inches in area or be more than 48 inches in either dimension.



HARRY C. KNISELY CO.'S DOUBLE STANDARD AUTOMATIC
PIVOTED WINDOW



ALL WINDOWS MANUFACTURED BY THE HARRY C. KNISELY CO. AND
INSPECTED AND PASSED BY THE UNDERWRITERS' LABOR-
ATORIES' INSPECTORS. BEAR THIS LABEL

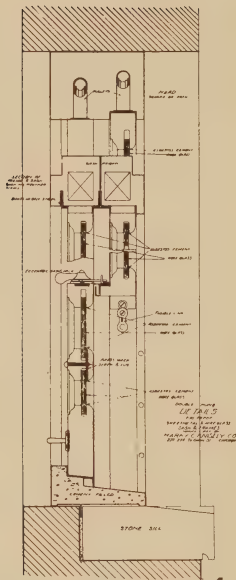
Section of Chicago Building Ordinance Relating to Fireproof Windows

SECTION 632

(Doors and Windows. When Required to Be Closed.
Fire Resisting Glass.)

Wherever the distance between doors and windows in buildings of Classes I., II., IV., V., VII. and VIII., on opposite sides of alleys or courts shall be less than thirty feet, or wherever the distance between such doors and windows and any inside lot line of any lot upon which any such building is erected is less than fifteen feet, or wherever the distance between such doors and windows and the alley line (where the alley is less than thirty feet wide) is less than fifteen feet, such windows and the glazed portion of such doors shall be made of fire-resisting glass, set in frames of incombustible material.

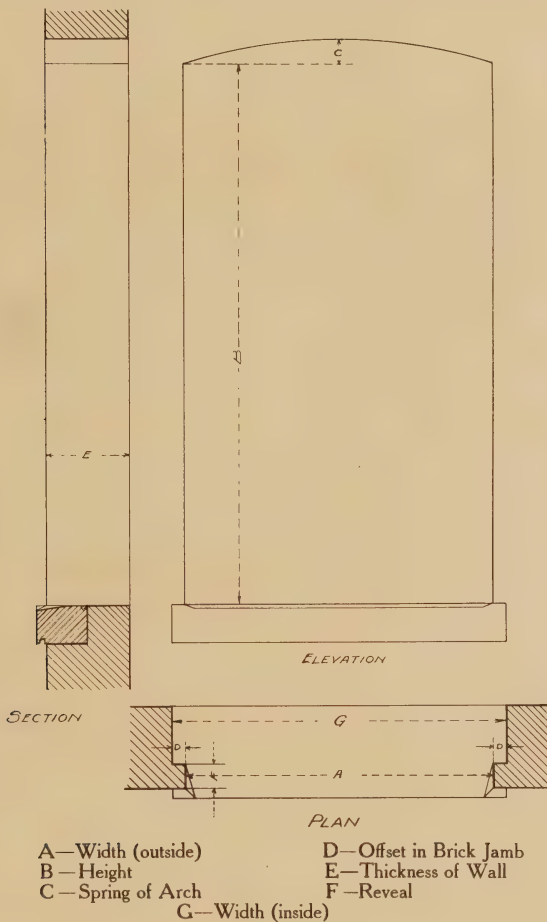
Where the windows in buildings of Class I. on lot line courts are less than two feet from the lot line the sashes shall be stationary.

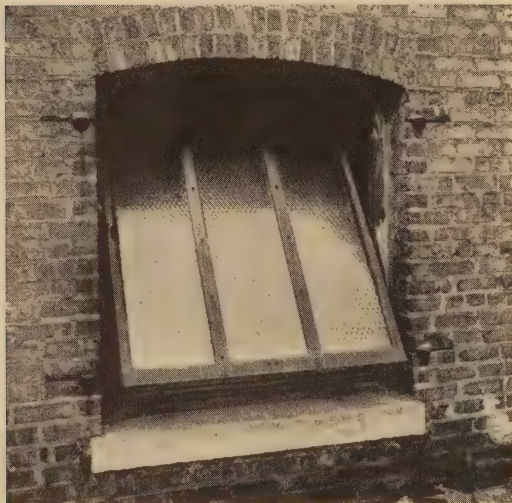


HARRY C. KNISELY CO.'S STANDARD AUTOMATIC CLOSING
SLIDING SASH WINDOW

WINDOWS OF ILLINOIS LEATHER CO.'S BUILDING. FIRE-PROOF WINDOWS
DISPLACING IRON SHUTTERS

Instructions for Measuring Window Openings





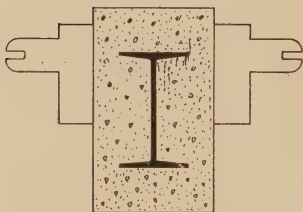
HARRY C. KNISELY CO.'S STANDARD SINGLE SASH
PIVOTED WINDOW

This style of window can be made with hinged sash

Partial List of Buildings
Equipped with the Harry C. Knisely Co.'s
Fireproof Windows

BUILDING	LOCATION	ARCHITECT
Ruprecht Bldg., 10 Sty. Mercantile . .	Chicago	Huehl & Schmid
W. C. Ritchie Co.	Chicago	A. E. Robinson
C. H. Hanson Factory	Chicago	C. O. Hansen
Borland Bldg., 18 Sty. Office Bldg. .	Chicago	Shepley, Rutan & Coolidge
Hirsch Wickwire Co., 10 Sty. Mer. .	Chicago	Jenney, Mundie & Jensen
Garrett Institute, Library	Evanston, Ill.	Chas. R. Ayars
Electric Vehicle Co.	Chicago	R. E. Schmidt
Woods Motor Veh. Co.	Chicago	W. A. Otis
Watson Smith	Chicago	Huehl & Schmid
Port Edwards Fibre Co., Paper Mill.	Port Edwards, Wis. .	
Aluminum Mfg. Co.	Two Rivers, Wis. . .	V. W. Coddington
Gale Mfg. Co.	Albion, Mich.	J. C. Llewellyn
Freer Estate, 10 Sty. Mercantile . . .	Chicago	Fritz Foltz
Evanston Public Library	Evanston, Ill.	Phillips, Rogers & Woodyatt
Metropolitan Elevated R. R.	Chicago	
McCormick Harv. Co.	Chicago	
Hull House	Chicago	Pond & Pond
American School of Correspondence .	Chicago	Pond & Pond
Thompson Chem. Co.	Chicago	J. F. Knudson
Eclipse Mach. & Boiler Co.	Chicago	W. F. Gubbins
Euston & Co.	Chicago	Huehl & Schmid
Jos. Downey, Bldg. Commissioner . .	Chicago	E. A. Hogenson
Sherwin-Williams Co., Paint Mills . .	Pullman	H. E. Stevens
Chicago Telephone Co.	Wheaton	Pond & Pond
Chicago Carriage Trimming Co.	Chicago	C. A. Eckstorm

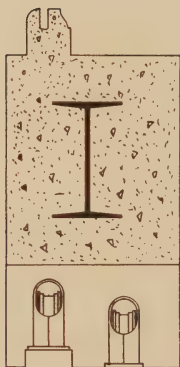
Reinforcement for Windows over 5 feet wide
or over 9 feet high



Mullion for Pivoted Window



Transom Bar for
Pivoted Window



Transom Bar for Sliding
Sash Window



Mullion for Sliding Sash Window

Partial List of Buildings
Equipped with the Harry C. Knisely Co.'s
Fireproof Windows

(Continued)

BUILDING	LOCATION	ARCHITECT
Cable Co.....	Chicago.....	
Kenwood Institute.....	Chicago.....	W. A. Otis
Ward-Corby Co.....	Chicago.....	R. C. Fletcher
College Theater.....	Chicago.....	J. E. O. Pridmore
Scovill Building.....	Chicago.....	E. A. Hogenson
Hardinge Bros.....	Chicago.....	
Spiegel-May-Stern Co.....	Chicago.....	Treat & Alschuler
Chicago City Railway Co.....	Chicago.....	Company Architect
Illinois Leather Company.....	Chicago.....	
Giles Building.....	Chicago.....	W. W. Clay
C. B. & Q. Ry.....	Galesburg, Ill.....	Company Architect
T. M. Sinclair Co.....	Cedar Rapids, Ia ..	
Dayton Spice Mills Co.....	Dayton, Ohio.....	Schenck & Williams
Torpedo Bldg., U. S. Gov't.....	Fort Totten, N. Y....	Lieut.-Col. W. L. Marshall
Kingan & Co.....	Indianapolis, Ind ..	
J. K. Seabee.....	Chicago.....	Postle & Mahler
Sprague, Warner & Co.....	Chicago.....	C. A. Eckstorm
Heitz Bldg.....	Indianapolis.....	
American Terra-Cotta Co., Factory ..	Terra Cotta, Ill.	W. D. Gates
McAvoy-Houghton, Office Bldg ..	Chicago.....	R. E. Schmidt
Quick & Willis, Factory.....	Moline, Ill.....	
Fifield Bldg.....	Beloit, Wis.....	Henry Lord Gay
Medinah Temple.....	Chicago.....	Huehl & Schmid
Hanchett Paper Co., Warehouse....	Chicago.....	Dean & Dean
Fort Dearborn Bldg., 15 Sty. Office Bldg.....	Chicago.....	Jenney, Mundie & Jensen



COURT ELEVATIONS OF L. C. P. FREER ESTATE BLDG., CHICAGO

Fritz Foltz, Architect



ALLEY ELEVATIONS OF L. C. P. FREER ESTATE BUILDINGS
CHICAGO

This photograph shows a good comparison between the unsightly iron shutters and the neat appearance of the fireproof windows



TORPEDO BUILDING, U. S. GOVERNMENT
FORT TOTTEN, N. Y.

Lieut.-Col. W. L. Marshall, Architect



GARRETT BIBLICAL INSTITUTE, NORTHWESTERN UNIVERSITY
EVANSTON, ILL.

Chas. R. Ayars, Architect



EVANSTON PUBLIC LIBRARY
EVANSTON, ILL.

Phillips, Rogers & Woodyatt, Architects

¶ Contracts taken in any part of the United States or Canada.

¶ Send us your requirements by mail, or express plans at our expense for quotations.

Harry C. Knisely Co.

273-275 S. Canal Street

Chicago, Ill.



PRESS OF
WM. JOHNSTON
PRINTING CO.
CHICAGO.